

REMARKS

This Amendment incorporates the features of claims 9 and 12 into claim 8. Claims 8, 10, 11 and 13-16 are pending.

Examiners Kohner and Walsh are thanked for the courtesies extended to the undersigned during a personal interview held October 6, 2004. The Examiner Interview Summary Record accurately reflects the substance of the interview.

Entry of this Amendment is earnestly requested, as it is believed (1) to place the application in condition for allowance, (2) not to raise any new issue or require any further search by the Examiner, (3) to be directly responsive to the Official Action and (4) to place the application in even better form for appeal, should such appeal be necessary. In this regard, the incorporation of claims 9 and 12 into claim 8 cannot raise a new issue or require further search, since claims 9 and 12 were previously searched and examined by the Office.

The 35 U.S.C. § 103(a) rejection of claims 8-16 over U.S. Patent No. 4,384,206 to Bjarno is respectfully traversed. As previously discussed, a feature of the claimed method for the analysis of an animal carcass is analyzing the animal carcass sample by direct inlet gas-phase Fourier Transform infrared

spectroscopy. In this regard, "direct inlet gas-phase" FT-IR spectroscopy is defined as excluding FT-IR coupled with an chromatographic device (specification, page 5, lines 8-11).

Bjarno fails to raise a prima facie case of obviousness against the claimed method because this reference does not disclose nor suggest the use of Fourier Transform infrared spectroscopy for the analysis of an animal carcass. Instead, Bjarno teaches dispersive infrared spectroscopy.

The Patent Office has failed to demonstrate that one of ordinary skill in the art would be motivated to modify Bjarno by replacing its dispersive infrared spectrometer with a Fourier Transform infrared spectrometer for high-speed, on-line analysis of an animal carcass. During the interview, Examiner Walsh cited Bjarno's reference to statistical analysis (Col. 9, lines 6-9) as a suggestion to employ Fourier Transform infrared spectroscopy. It is respectfully submitted that this discussion in Bjarno is merely a suggestion to employ statistical analysis of raw IR data generated by a dispersive infrared spectrophotometer.

U.S. Patent No. 4,102,646 to Sleeter is narrowly limited to the use of infrared spectroscopy (either FT-IR or dispersive IR<sup>1</sup>) for the analysis of carbohydrates. One of ordinary skill in the art, seeking an improved method for analyzing animal carcasses, would not consider Sleeter's method for carbohydrate analysis, particularly in view of Sleeter's use of high pressure liquid chromatography to sample its unknowns prior to its IR analysis for carbohydrate compositions (Col. 4, lines 59-62). As discussed above, a feature of the claimed method is the use of direct inlet FT-IR, in which no chromatographic separation is performed prior to analysis.

The conclusion that one of ordinary skill in the art would not consider the use of direct inlet gas phase FT-IR for analysis of nutritive samples is reinforced by Sanders, "Application of Fourier Transform Infrared Spectroscopy in the Fields of Foods and Beverages," 17 Analysis of Foods and Beverages: Modern Techniques 553-583. Sanders teaches various possible usages of FT-IR in the analysis of foods and beverages. The sampling methods taught by

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<sup>1</sup>During the interview Examiner Walsh noted that both Bjarno and Sleeter mention a Perkin-Elmer 580 infrared spectrophotometer. However, Sleeter also identifies two FT-IR spectrophotometers (Digilab IRFTS 15 and Nicolet 7199 FT-IR System). The Applicants have confirmed that the Perkin-Elmer 580 is a dispersive spectrophotometer which is unable to perform FT-IR analysis.

Sanders include liquid or solid phase sampling such as ATR, LC/IR, diamond anvil cell, diffuse reflectance, PAS reflection-absorption and diamond cell. The only gas-phase method disclosed by Sanders is GC/FTIR. As discussed above, the present application specifies that "direct inlet" gas-phase FTIR spectroscopy requires the sample gas or volatiles to be injected directly into the spectrometer's sample cell, and that coupling the FT-IR to a chromatographic device is specifically excluded. In this regard, when gas chromatography is used with FT-IR, the FT-IR spectrum is not a multi-component spectrum but rather a single component spectrum which can be used for identification and quantification. None of the methods described by Sanders contain any reference or even implication of using FT-IR in a gas-phase, multi-component analysis of food volatiles.

In short, the use of direct inlet, gas-phase Fourier Transform IR spectroscopy for high-speed on-line analysis of an animal carcass is simply not suggested by the prior art. Reconsideration and withdrawal of the obviousness rejection of claims 8-16 are earnestly requested.

It is believed the application is in condition for allowance. Reconsideration and withdrawal of the sole rejection of claims 8-16, and issuance of a Notice of Allowance directed to claims 8, 10,

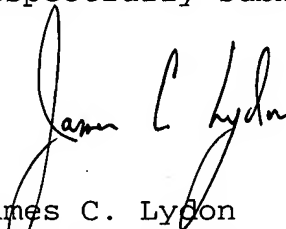
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AMENDMENT AFTER FINAL REJECTION

**PATENT**

11 and 13-16, are earnestly requested. The Examiner is urged to telephone the undersigned should he believe any further action is required for allowance.

It is not believed any fee is required for entry and consideration of this Amendment. Nevertheless, the Commissioner is requested to charge our Deposit Account No. 50-1258 in the amount of any such required fee.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James C. Lydon". The signature is fluid and cursive, with the first name "James" and last name "Lydon" clearly distinguishable.

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